

SPECIFICATION AMENDMENTS

On page 14, replace Table I. Excitation and Emission Ranges for Microbial Fluorophores with the following substitute Table, where only the title has been altered.

Table I. Excitation and Emission Ranges for Select Human Body Fluids.

Excitation Range (nm)	Emission Range (nm)	Skin Oil	Semen	Blood	Urine	Saliva
250 – 300	320 - 360	X	X	X	X	X
250 – 300	380 - 460				X	
250 – 290	430 - 480		X			
360 – 390	420 - 510		X		X	
390 – 410	430 - 540		X		X	
430 – 470	480 - 570		X		X	
520 – 540	630 - 700	w				w
570 – 590	630 - 700			X		X
640 – 680	760 - 840				X	
790 – 810	860 - 930		X			

On page 3, line 8, continuing on page 4, replace paragraph with the following rewritten paragraph to substitute the word “reflection” at the end of line 20 with the word “excitation”.

The detection of biological materials on real world sample surfaces is made more reliable by the aforementioned method for two reasons. First, the simultaneous excitation of biological material by multiple excitation energies (or sequential excitation by single energies) and ensuing coincident detection of numerous fluorescence signals reduces the chance of interference, as the probability of an interference source duplicating the characteristics of numerous fluorophores is extremely small. Second, the relative quantities of the intrinsic metabolites, and thus of the resulting fluorescent signals, have been found to fall within biologically determined ranges. Analysis of the signals is achieved with a method capable of two things: (1) separating the detected fluorescent signals originating from any biological material present from interferences or background signals and/or scattered excitation signals, and (2) a requirement that the intensities of the signals from various fluorescent components fall within expected ranges. Thus, the basis for the detection of biological materials is comprised of the following steps: first, excitation of a sample either simultaneously with multiple excitation energies or sequential excitation of multiple excitation energies characteristic of intrinsic fluorophores of biological material; second, the subsequent collection of the numerous individual fluorescence signals (associated with the maxima and minima of the emissions of these excited fluorophores); and finally, analysis of the collected signals with a method capable of removing background fluorescence (signals not originating from fluorescent components of the biological material, reflected excitation light nor scattered excitation light), reflected excitation signals, and scattered excitation signals; and comparing the relative fluorescence signal magnitudes of the expected ranges.